



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,842	07/31/2003	Hun-Kee Kim	45496	1957
<div>7590 07/18/2007</div> <div>Peter L. Kendall Roylance, Abrams, Berdo & Goodman, L.L.P. Suite 600 1300 19th Street, N.W. Washington, DC 20036</div>				
			EXAMINER	
			DEPPE, BETSY LEE	
			ART UNIT	PAPER NUMBER
			2611	
			MAIL DATE	DELIVERY MODE
			07/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/630,842	Applicant(s) KIM ET AL.	
	Examiner Betsy L. Deppe	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 23-27, filed March 26, 2007, with respect to claims 1, 2 and 6 have been fully considered and are persuasive. The rejection of November 24, 2006 has been withdrawn.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings are objected to because:
 - a. in Figure 1, "INTER" should be "INNER" (see page 5, line 7); and
 - b. in Figure 7, "INTEGRATION AND DUMP" should be "SELECTORS" (see page 29, lines 14 and 20).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. The claims are objected to because of the following informalities:
 - a. in claim 1, lines 3-4; claim 6, line 4; claim 10, lines 3-4; claim 15, line 4; claim 19, lines 3-4; claim 21, line 4; claim 22, line 3; claim 26, line 4; claim 30, line 3; claim 34, line 4; claim 38, line 3; and claim 39, line 4, "the first channel signal" should be "a first channel signal";
 - b. in claim 1, line 5; claim 6, line 10; claim 10, line 5; claim 15, line 11; claim 19, line 5; claim 21, line 8; claim 22, line 5; claim 26, line 9; claim 30, line 4; claim 34, line 9; claim 38, line 4; and claim 39, line 4, "the second channel signal" should be "a second channel signal";
 - c. in claim 2, line 4; claim 6, line 5; claim 11, line 4; claim 15, line 6, "the" should be inserted after "sorting";

Art Unit: 2611

- d. in claim 2, line 6; claim 6, line 7; claim 11, line 6; claim 15, line 8, "the" should be inserted after "selecting";
- e. in claim 2, line 7; claim 20, line 4, "an average" should be "the average" (see claim 1, line 10);
- f. in claim 2, line 8; claim 11, line 8, "a square of an absolute" should be "the square of the absolute";
- g. in claim 6, line 11, "average power" should be "average value" (see claim 6, line 8);
- h. in claim 11, line 7, "a center" should be "the center";
- i. in claim 20, line 5, "a" should be "the";
- j. in claim 39, line 3, "the" should be inserted before "symbols".

Appropriate correction is required.

Allowable Subject Matter

- 2. Claims 1-39 are allowable.
- 3. The following is a statement of reasons for the indication of allowable subject matter: prior art of record does not teach or suggests in combination a power ratio detector or detection method as recited in the respective independent claims.

Conclusion

4. This application is in condition for allowance except for the following formal matters: objections to the drawings and claims.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references disclose a channel estimator and channel compensator but do not disclose the recited power ratio detection apparatus or method: Jalloul et al. (US Patent No. 6,430,214 B1), Yeo et al. (US Patent No. 7,170,923 B2) and Bottomley (US Patent No. 7,236,514 B2).

Holtzman (US Patent No. 6,393,257 B1) discloses a receiver that estimates the ratio of the energy the traffic channel to the energy of the pilot.


6. Please note that this application is now assigned to a different Examiner.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsy L. Deppe whose telephone number is (571) 272-3054. The examiner can normally be reached on Monday, Wednesday and Thursday.

Art Unit: 2611

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Betsy L. Deppe
Primary Examiner
Art Unit 2611